



Highlights

- Move big data to, from and across cloud infrastructure at the speed your business demands
 - Bring predictability to digital workflows that depend on the transfer of large files and data sets in the cloud
 - Integrate large digital assets into your existing or new processes
 - Large variety of on demand client options and applications for transport, ingest, sharing, collaboration and exchange of big data in the cloud
 - Quickly move data of any size to any cloud environment over any network at line speed
-

IBM Aspera on Demand

High-speed transfers to, from, and across the cloud

Cloud computing has become a viable, mainstream solution for data processing, storage and distribution, but moving large amounts of data in and out of the cloud has presented an insurmountable challenge for companies with terabytes of digital files.

As a leading provider of high speed data transfer solutions, Aspera has made significant investments to natively integrate its software technology into cloud storage. IBM's Aspera on Demand solutions are used by many organizations to unlock the value of the cloud for big data. This technology allows companies to reliably and securely move large files and datasets to, from and across the cloud at maximum speed.

The IBM Aspera solution

To offer a viable option for big data management, processing and distribution, cloud platform providers such as IBM's SoftLayer® need a high-speed transport solution to address the two main bottlenecks:

- The degradation in wide area network (WAN) transfer speeds that occurs over distance using traditional transfer protocols.
- The "last foot" bottleneck inside the cloud datacenter caused by the HTTP interfaces to the underlying cloud object storage.

With Aspera's patented Fast, Adaptive and Secure Protocol (FASP®) transport technology at its core, the suite of Aspera on Demand (AoD) transfer products solves both the technical problems of the WAN as well as the cloud I/O bottleneck. With AoD, Aspera delivers industry-leading scale-out transfer capacity to enable efficient, large-scale workflows with enterprise-grade encrypted security, a variety of client options (desktop, web, mobile, embedded), and applications for transport, ingest, sharing, collaboration and exchange of big data, all available on demand under a subscription license model.



AoD is the clear answer to one of the most significant challenges of hosting big data applications in the cloud. Our leading data transfer solutions are a critical part of infrastructure for our customers who need to deliver big data to, from and across cloud storage. Many companies rely heavily on AOD to help maximize the performance and utilization of their cloud infrastructure.

What is Aspera on Demand?

AoD is a full set of Aspera’s software available for deployment and use on SoftLayer as well as Amazon Web Services, Google, and Microsoft Azure with a pay-per-use license model. Built on top of Aspera’s FASP protocol, AoD allows customers to quickly move data of any size to any cloud environment over any network at line-speed. The solution provides high-speed, robust, secure and resumable file transfers directly to cloud storage environments.

Our bundled on demand solutions

Aspera has developed five distinct AoD bundles with various add-on options to provide customers with simple, robust solutions to their complex problems. These bundles address the needs of the most common deployments and use patterns for our software. They include:

- **IBM® Aspera® Server on Demand:** IBM® Aspera® Enterprise Server, IBM® Aspera® Console and a dedicated transfer client

- **IBM® Aspera® faspex™ on Demand:** Aspera Enterprise Server and IBM® Aspera® faspex™
- **IBM® Aspera® Shares on Demand:** Aspera Enterprise Server, IBM® Aspera® Shares and Aspera Console
- **IBM® Aspera® Application Platform on Demand:** Aspera Enterprise Server, Aspera Console, IBM® Aspera® Connect Browser Plug-in (IBM® Aspera® SDK sold separately)
- **IBM® Aspera® Console on Demand:** Aspera Console

***Add-on options – IBM® Aspera® Drive, IBM® Aspera® mobile apps, IBM® Aspera® for Microsoft® Outlook, and IBM® Aspera® Embedded Client

Solutions for common use cases

Ingest / Mass transport

Aspera Server on Demand or Shares on Demand are ideal solutions for high-speed, large volume, secure data ingest to the cloud. Using an IBM® Aspera® Desktop Client, or the Aspera Connect Plug-in, users can transfer files at maximum speed directly to cloud storage where the data is accessible by other applications running in the cloud. Both of these solutions provide an easy web-based configuration for both storage access and user management. Aspera Console, which comes with each of the on demand bundles, provides the ability to configure access to individual storage buckets and directories.

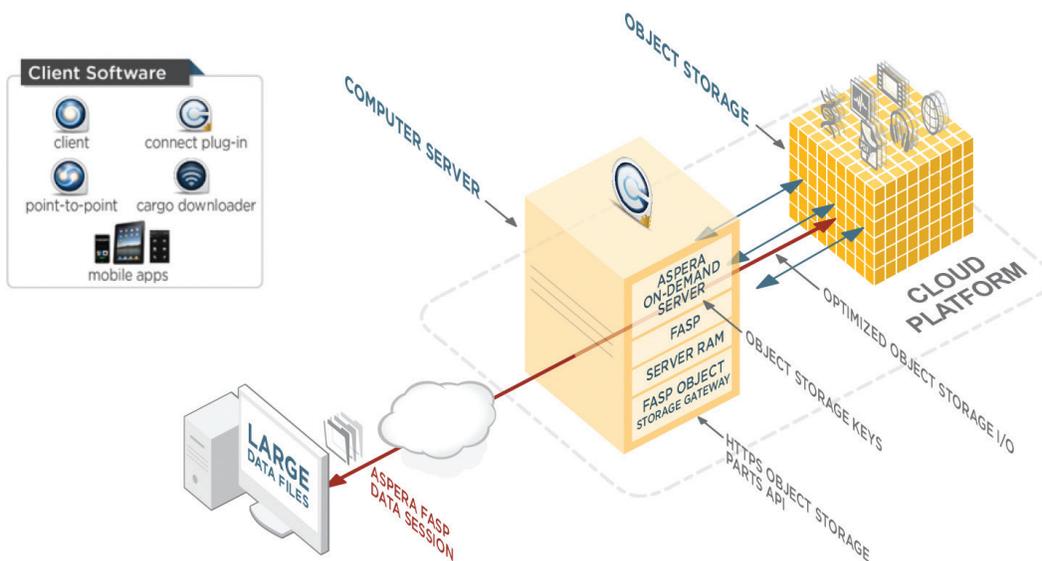


Figure 1: Aspera direct-to-cloud transport, a fundamental solution for large file and dataset transfers with cloud object storage, provides native FASP transport capability that is deeply integrated with the cloud platform’s object storage

Sharing and collaboration

Aspera Shares on Demand with easy file sharing enables a natural solution for big data collaboration in the cloud. Whether you are collaborating with individuals or in groups, occasionally or frequently, Aspera Shares on Demand provides the transfer and notification features that help meet your needs. Shares on Demand comes with web-based user management, access control, notification options and storage configuration.

Person-to-person delivery

Aspera *aspex* on Demand is an ideal solution for organizations that are in need of a high-speed file delivery solution for their employees, customers or partners. *aspex* is an email-style file and package delivery system, which includes user management, storage access control, transfer monitoring and notification in one simple easy-to-use web interface. Aspera Cargo, an automatic downloader, is available as an add-on for those interested in automating transfers from the *aspex* platform.

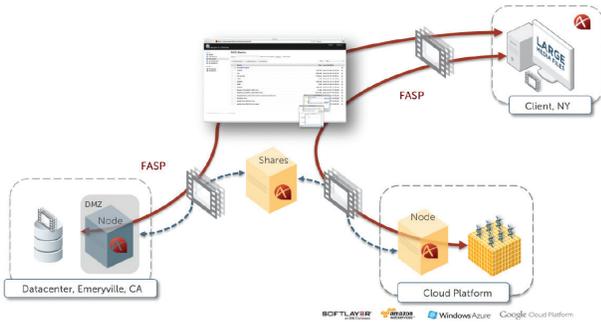


Figure 2: Diagram of the sharing and collaboration use case

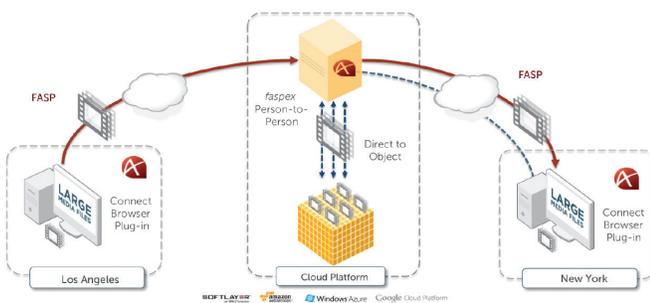


Figure 3: Diagram of the person-to-person delivery use case

Integration

Aspera Application Platform on Demand is the solution for any third-party SaaS providers who would like to integrate the FASP high-speed transfer technology into their SaaS platform. This solution, when combined with the SDK, provides the required software and licensing to support integrations. The SDK developer subscription is licensed separately and is required to access the documentation, libraries, sample code and developer support.

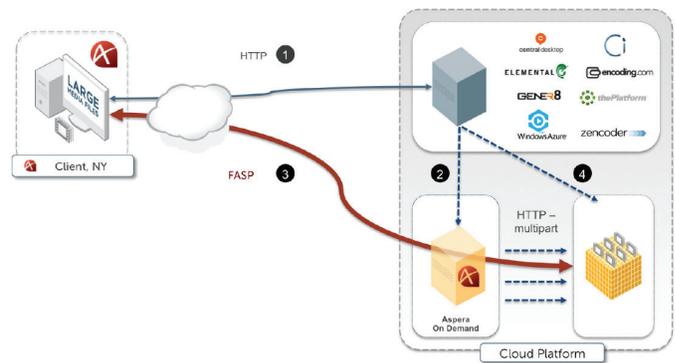


Figure 4: Diagram of the Integration use case

On Demand highlights

Key Aspera differentiators

- AoD offers the most tightly integrated high-speed big data transport solutions in SoftLayer and other major cloud platforms
- Rock solid reliability, pause/resume capability, and in-flight and at-rest encryption in the cloud
- Automatic retry and checkpoint resume of any transfer (single files and directories) from point of interruption
- Support for files and directory sizes in a single transfer session up to the largest object size supported by the selected cloud platform
- Support for directories containing any number of individual files with high speed, even for very large numbers of very small files

Flexible deployment

- AoD products support any storage type or location (block, object, on-premises, cloud or hybrid)
- Adaptable to many use scenarios: one-to-one, hub and spoke, cloud to datacenter, and cloud-to-cloud

- Fully interoperable transfer support with all core Aspera products acting as transfer peers with the cloud storage and for all modes of transfer (e.g., command line, interactive GUI point-and-click, browser, hot folder automation, and SDK automation)
- Available as pay-as-you go licensing and custom and hybrid deployments across any infrastructure type/combination

Built on FASP

- Maximum transfer speed over WAN independent of latency and packet loss
- Extreme file sizes and datasets over global distances
- Concurrent transfer support scaling up to ~ 50 concurrent transfers per VM instance
- Direct high-speed transfer to object storage up to the I/O limits of the chosen cloud platform

Adaptive bandwidth control

- Full use of the bandwidth capacity
- Fair to other TCP traffic
- Priority can be pre-set or changed on-the-fly

Enterprise-grade security

- Secure end-to-end authentication
- User management based on application, directory service or identity provider accounts
- Data encryption in transit and at rest on cloud storage
- Data integrity verification
- Transfers to/from cloud environments support Aspera proxy on the client side in forward or reverse mode
- Account management, transfer logging, activity monitoring and reporting

Subscription overview

AoD has a subscription license model where pricing for each bundled solution is based on these variables:

- 1) The term of the contract (monthly, yearly, multi-year)
- 2) The data transfer volumes over the contract term
- 3) Optional client add-ons

Purchases are made by paying for a required data transfer volume over the desired term. Pricing discounts are offered by increasing the AoD term commitment and/or the data usage tier for the chosen term.

How to purchase and deploy

To deploy AoD software on the SoftLayer, Google or AWS platforms, customers have two “Bring Your Own Entitlement” (BYOE) options that involve purchasing a software

entitlement directly from IBM Aspera. These options include deploying Aspera using a pre-packaged virtual machine set-up or self-install software process.

For key details on the purchasing and deploying of Aspera’s Application Platform on Demand, Server on Demand and *faspex* on Demand for Microsoft Azure, see the information provided below.

The deployment process for both options for each cloud platform is listed on the following support pages.

SoftLayer at <https://support.asperasoft.com/entries/67246796>

Google at <https://support.asperasoft.com/entries/38947688>
AWS at <https://support.asperasoft.com/entries/21731156>.

Each AoD software package is available for installation on a standard Linux 64 host from the IBM software download site. Access to the software, documentation and license keys will be made available upon purchase of the solution entitlement.

To deploy AoD on Microsoft Azure, customers must purchase the transfer service through the Azure Marketplace. Aspera software that has been purchased for on-premises deployments cannot be installed on virtual machines running on the Azure platform. See the Aspera quick start guide at <https://support.asperasoft.com/entries/21970287> for more details.

Questions?

Please contact Aspera Sales at sales@asperasoft.com for detailed pricing, availability and evaluation of our Aspera on Demand product bundles. Additional information on “Getting Started” and advanced configurations can be found on the Aspera Support portal under the “Aspera on Demand” forum located at <https://support.asperasoft.com/forums/20790238>

About Aspera, an IBM Company

Aspera, an IBM company, is the creator of next-generation transport technologies that move the world’s data at maximum speed regardless of file size, transfer distance and network conditions. Based on its patented, Emmy® award-winning FASP® protocol, Aspera software fully utilizes existing infrastructures to deliver the fastest, most predictable file-transfer experience. Aspera’s core technology delivers unprecedented control over bandwidth, complete security and uncompromising reliability. Organizations across a variety of industries on six continents rely on Aspera software for the business-critical transport of their digital assets.

Notes

For more information

For more information on IBM Aspera solutions, please visit ibm.com/software/aspera and follow us on Twitter [@asperasoft](https://twitter.com/asperasoft).



© Copyright IBM Corporation 2015

IBM Corporation
Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
July 2015

IBM, the IBM logo, ibm.com and Aspera are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at: ibm.com/legal/copytrade.shtml.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

SoftLayer® and SoftLayer® device are trademarks or registered trademarks of SoftLayer, Inc., an IBM Company.

Other product, company or service names may be trademarks or service marks of others.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on the specific configurations and operating conditions. It is the user's responsibility to evaluate and verify the operation of any other products or programs with IBM product and programs. THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.



Please Recycle